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December 15, 1992

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DIVISION OF
OIL GAS & MINING

Mr. Don Ostler, Director
Division of Water Quality
Department of Environmental Quality
P. O. Box 144870
Salt Lake City, Utah 84114-4870

Dear Mr. Ostler:

RE: SKYLINE MINES - WATER MANAGEMENT REPORT

This "Water Management Report" is submitted in response to an agreement reached with members of your staff in a meeting held on September 16, 1992, and as formally requested in correspondence dated September 30, 1992. It outlines action taken at the mine to reduce the TDS concentration in the discharge at Outfall 001.

Past Actions Taken:

- In early 1991 when sufficient data were available which suggested that gypsum based rockdust was the contamination source, this rockdust was replaced with a limestone based material. Rockdust shipments are tested periodically for product purity.
- Tests were conducted to identify those underground sources of contamination which contributed most significantly to the TDS problem. Water flow in these areas was diverted where possible to avoid additional contamination. Pipe diversions were used where practical.
- An attempt was made to control the water level in a high TDS contribution area known as the North Mains Sump (see attached schematic diagram). Stabilizing the water level helps reduce the amount of re-entrained rockdust.
- The water conveying systems in Mine 1 were divided to help isolate water with higher TDS concentration. This water is now stored in a tank for use as a dust suppressant during mining operations and is mostly removed from the mines with the coal. When the water supply from this source was insufficient, supplemental water was taken from Mine 3. A problem with this system has been that the Mine 3 system overpowered the Mine 1 pump until the tank was full which diverted the higher TDS water from Mine 1 to the NPDES discharge point. Attempts to balance the systems have been unsuccessful.

Actions Currently Being Taken:

- A modification to the water distribution system was recently made which supplements Mine 1 high TDS water with Mine 3 water, but does not divert the Mine 1 water to the discharge during this process.

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- An underground water source evaluation is continuing which helps identify the relative TDS contributions from each source. The possibility of isolation and diversion of high TDS water to the mining process circuit is continually being investigated. The development of sumps large enough to stabilize the quality of the discharge water is also a subject of continuing investigation.

Past and current actions have resulted in a general downward trend of TDS, as indicated by recent compliance samples below 1,000 TDS.

Actions Being Planed:

- A higher capacity compressor is being tested at the North Mains air lift pump to see if it can better stabilize the water level in this sump. This may lower the water level in the sump and reduce the amount of gypsum rockdust coated surfaces exposed to fluctuating water levels.
- Based on the continuing source evaluation, an opportunity has been identified at the Mine 1 - 4 Left Bleeders to isolate and remove some low TDS water for direct NPDES discharge. This will provide opportunity for use of additional high TDS water in the mining process system.

Past Action Being Taken With the Emulsion Fluid System

- Increased employee awareness of environmental concerns associated with emulsion fluid. This has resulted in faster repair responses.
- Changed from petroleum based to synthetic based emulsion fluid to reduce toxic potential.
- Located catch trailers near longwall systems to contain fluid and limit potential spillage.
- Modified emulsion oil pre-control collection system. This change increased the hose size and doubled the surge reservoir capacity.
- On the Mine Number 1 longwall system an improved double seal system was installed on the advancing rams.

Current Action Being Taken with the Emulsion Fluid System

- The primary support systems are routinely inspected for leaks. Required repair is made promptly.
- The booster tank in the Mine Number 3 emulsion fluid system is being fitted with a status monitor and automatic shut-off to prevent tank overflow.

Future Action Being Taken with the Emulsion Fluid System

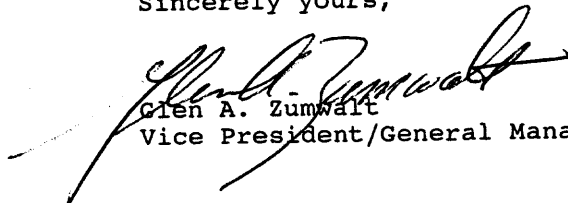
- Modified control valves are being tested for potential to reduce leakage. If successful, the valves currently used will be replaced.

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The above listed actions represent a concentrated effort to deal with our TDS problem. We regularly share information with other mine operators and will implement new ideas which seem feasible.

We appreciate your forbearance as we have dealt with this problem, and welcome any suggestions which you or members of your staff may have.

Sincerely yours,



Glen A. Zumwalt
Vice President/General Manager

Keith Welch:gb

cc: Ken May
Craig Hilton

SKYLINE MINES

Water Handling Schematic

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